ABSTRACT OF THE DISCLOSURE

A buoyant water conditioner has a pH measurement system with a pH sensor, a pH measurement circuit, a display for displaying measured pH values, and a processor. After immersing the sensor in water of known pH value, the processor performs a calibration routine in response to the operation of a calibration switch. If the calibration succeeds, the sensor is immersed in water of unknown pH value, and the processor performs a pH measurement routine when a start switch is operated. Both routines include a delay period during which no pH values are displayed. If the calibration is not successful, the calibration routine is repeated until it succeeds. The calibration and start switches are mounted on an upper surface of the water conditioner housing. The system is powered by a solar cell battery or a chemical battery.